

## WHAT IS CLAIMED IS:

1. An IR and UV absorbing soda-lime-silica glass of a neutral tint having, in a nominal 4 mm thickness, a visible light transmittance of at least 70%, a direct solar heat transmission at least twelve percentage points below the visible light transmittance, a dominant wavelength not greater than 560 nm and a color purity of no more than 6%, said glass on a weight basis including as essential ingredients a total iron content expressed as  $\text{Fe}_2\text{O}_3$  from about 0.3% to 0.7%, from about 0.5 to 10 ppm Se, from about 3 to 25 ppm  $\text{Co}_3\text{O}_4$ , 0 to 50 ppm NiO and 0 to 1.5%  $\text{TiO}_2$ , and having a ferrous iron to total iron (as  $\text{Fe}_2\text{O}_3$ ) ratio in the range of 21 to 34.
2. An IR and UV absorbing soda-lime-silica glass as claimed in claim 1, wherein said direct solar heat transmission is at least fifteen percentage points below the visible light transmittance.
3. An IR and UV absorbing soda-lime-silica glass as claimed in claim 1, having an ultraviolet radiation transmission less than 55%.
4. An IR and UV absorbing soda-lime-silica glass as claimed in claim 3, wherein said ultraviolet radiation transmission is less than 50%.
5. An IR and UV absorbing soda-lime-silica glass of a neutral tint having, in a nominal 4 mm thickness, a visible light transmittance of at least 70%, a direct solar heat transmission at least fifteen percentage points below the visible light transmittance, a dominant wavelength not greater than 560 nm and a color purity of no more than 6%, said glass on a weight basis including as essential ingredients a total iron content expressed as  $\text{Fe}_2\text{O}_3$  from about

0.45% to 0.65%, from about 1 to 5 ppm Se, from about 8 to 20 ppm  $\text{Co}_3\text{O}_4$ , 0 to 35 ppm NiO and 0 to 1%  $\text{TiO}_2$ , and having a ferrous iron to total iron (as  $\text{Fe}_2\text{O}_3$ ) ratio in the range of 25 to 31.

6. An IR and UV absorbing soda-lime-silica glass as claimed in claim 5, wherein said direct solar heat transmission is at least 20 percentage points below the visible light transmittance.

7. An IR and UV absorbing soda-lime-silica glass as claimed in claim 5, wherein said color purity is no more than 5%.

8. An IR and UV absorbing soda-lime-silica glass as claimed in claim 5, wherein said color purity is no more than 3%.

9. An IR and UV absorbing soda-lime-silica glass as claimed in claim 5, having an ultraviolet radiation transmission less than 55%.

10. An IR and UV absorbing soda-lime-silica glass as claimed in claim 9, wherein said ultraviolet radiation transmission is less than 50%.

11. An IR and UV absorbing soda-lime-silica glass of a neutral tint having a base glass composition comprising in percent by weight:

$\text{SiO}_2$	65 - 80
$\text{Na}_2\text{O}$	10 - 20
$\text{CaO}$	5 - 15
$\text{MgO}$	0 - 10
$\text{Al}_2\text{O}_3$	0 - 5
$\text{K}_2\text{O}$	0 - 15
$\text{BaO}$	0 - 5
$\text{B}_2\text{O}_3$	0 - 5

and traces of melting and refining aids, if any, and colorants consisting essentially of:

$\text{Fe}_2\text{O}_3$ (total iron)	0.3 - 0.7 weight percent;
Se	0.5 - 10 ppm;
$\text{Co}_3\text{O}_4$	3 - 25 ppm;
$\text{TiO}_2$	0 - 1.5 weight percent;
NiO	0 - 50 ppm; and

FeO content to provide a ratio of ferrous iron to total iron in the range of 21 to 34,

the glass having a visible light transmittance of at least 70%, a direct solar heat transmission at

least 12 percentage points below the visible light transmittance, a dominant wavelength not

greater than 560 nm and a color purity of no more than 6% at a nominal glass thickness of 4 mm.

12. In a process for producing an IR and UV absorbing soda-lime-silica glass of a neutral tint containing oxides of iron and cobalt and having a ferrous iron to total iron (as  $\text{Fe}_2\text{O}_3$ ) ratio in the range of 21 to 34, including admixing, heating and melting a soda-lime-silica float glass batch mixture comprising sand, soda ash, dolomite, limestone, and a sulfate selected from the group consisting of salt cake and gypsum, the improvement comprising including in said batch wuestite as at least a partial source of the iron oxides in the resulting glass.